

Health of Home and School.

LEAFLET NO. 23.

ISSUED BY THE STATE BOARD OF HEALTH OF MAINE.

Typhoid fever, how not to have it.

Every year we pay a heavy penalty for our old fashioned notions and our carelessness about typhoid fever. Typhoid fever is an infectious disease, but it can be prevented and should be prevented.

How shall we do it?

We must understand clearly (1st) that the cause of typhoid fever is a microscopic plant growth. It is called the bacillus of typhoid fever. This bacillus is the infection of the disease. The only sources of it are the living bodies of persons who have typhoid fever or have had it. There is just one other source: infection carriers. Read Leaflet No. 12 to understand what that means.

(2nd) Typhoid fever can be spread only by the carrying into the mouths and intestinal tracts of other persons particles from the infectious discharges of persons who have typhoid. The ways in which this may be done are:

(a) By his infected fingers a person may carry the infection directly to his own mouth and lips, or he may, with his hands which have been unwashed and undisinfected, contaminate his own food or that of others, thus spreading infection. Food may be infected by the fingers of persons with typhoid fever, or by the fingers of attendants upon the sick.

(b) Cups or spoons or other eating utensils used by the sick may serve as the agents of transmission.

(c) Flies which go to the sickroom, or to infected privy vaults, or to other sources of infection may then infect milk, bread or other supplies.

(d) Sudden and severe outbreaks of typhoid fever are sometimes due to milk which has been infected while milking or during the subsequent handling or distribution of it.

(e) Wells, springs, cisterns and public or other water supplies may serve as a medium of infection after they, directly or indirectly, have received infected matter from typhoid discharges.

Personal rules and precautions.

1. The carrying of infection by infected fingers is one of the greatest of the dangers. While in the sickroom of the typhoid fever patient, the attendant must be unceasingly thoughtful and careful. The fingers of the nurse must be kept from her mouth and lips. Typhoid fever can be introduced into the system only through the mouth. This must be remembered always. After touching or handling any infected articles, and after coming from rooms or other places where infection may exist, the hands should be washed very carefully with soap and water and disinfected if it is convenient to do so.

2. Persons in typhoid fever houses should wash their hands frequently, being very careful to do so every time after leaving the toilet room and every time just before eating.

3. Guard carefully against infecting drinking water, milk or other foods with unwashed hands. The mother or nurse who attends to the wants of the typhoid fever patient and then prepares the family meal without carefully washing her hands endangers the other members of the family very much.

4. In a typhoid house, do not eat anything in the sickroom or anything which has been in the sickroom. Avoid cold and raw foods as much as possible.

5. When typhoid fever has occurred in a house, regard the water supply with suspicion. By boiling water all typhoid infection in it is destroyed. It is therefore a good rule to begin immediately the boiling of the drinking water upon the first appearance or even suspicion of a case of typhoid fever in the family.

6. Immediately after food is cooked, cover it so that flies may not carry infection to it.

7. By screening doors and windows exclude flies from all living rooms. Flies may bring infection from a distance. Kill every fly which chances to enter the room.

8. Flies should be excluded from the typhoid fever sickroom, from privy vaults and from other places where they may load themselves with infection and spread it.

9. Keep kitchen and table dishes thoroughly clean and scald them before use.

10. With the utmost care keep infectious matter far from springs, wells or other sources of water supply. Do not have washing done near any source of water supply.

Rules for the sickroom.

The aim of the sickroom management should be the prompt destruction of every vestige of infection leaving the patient in the solid or liquid discharges so that infection may not be communicated to other persons.

1. Precautionary measures should be begun as soon as any suspicious symptoms indicate the probability, or even the possibility of typhoid fever. Many persons are disseminating typhoid infection before they are sick enough to take to their beds. Get busy with the first suspicion of typhoid fever.

2. Unnecessary visitors should be excluded from the sickroom. The nurse, observing the proper precautions, will not endanger other persons.

3. By means of screened doors and windows, flies should be excluded from the sickroom.

4. In convenient proximity to the sickroom there should be a tub or other large vessel partly full of Solution 1 or 6; this for the immediate reception of soiled clothing and bedding.

5. Just inside or outside of the door there should be a wash stand and wash basin with a supply of water so that the nurse, medical attendants and others who leave the room may wash and disinfect their hands, using Solution 1, 6 or 7.

6. All discharges from the patient should be disinfected very thoroughly by adding an equal volume of Solutions 1 or 5 and letting the mixture stand at least 4 hours before it is emptied. And a surer way to disinfect the discharges is to carry them out and pour upon them in the vessel at least five or six times their volume of really boiling water. Then give the heat time to act.

7. The ultimate disposal of the discharges from the patient may be down the water closet bowl if there is good plumbing and a water carriage system, and if nobody below has a water supply to be polluted. They must not be poured into a privy or earth closet vault. They should be buried far from any well, spring or other source of water supply.

8. If floors or anything else have been contaminated the places should be thoroughly soaked with Solution 1, 6 or 7 as soon as possible, and then cleaned after the disinfectant has had a chance to act sufficiently.

9. For a month at least after leaving his bed the convalescent from typhoid fever should be very careful not to endanger other persons, because many such convalescents are still giving off infection. Safe disposal of discharges should be continued and persons recently recovered from typhoid fever should do no milking nor cooking, nor serving or handling of food.

Disinfecting solutions.

Solution 1.—Seven ounces of carbolic acid (pure liquified) to one gallon of water.

Solution 5.—“Milk of lime” recently prepared and made with good fresh lime not air slaked in the least.

Solution 6.—One dram of corrosive sublimate (or 8 tablets) dissolved in one gallon of water. Must be mixed and kept in glass, crockery, or wooden vessels. Injures and is spoiled by contact with metals. Label, *Poison!*

Solution 7.—Six ounces of the strong solution of formaldehyde (Formalin) to one gallon of water.

Health of Home and School.

LEAFLET NO. 30.

ISSUED BY THE STATE BOARD OF HEALTH OF MAINE

Cases of Poisoning and What to Do.

The proper care of medicines for internal use and of liniments and other things for external application should be the rule and the practice in every home. All of these things, as well as poisons for rats and mice and all insecticides for domestic or agricultural use, should be plainly marked and kept in safe places.

The orderly care of all things which may have poisonous effects if improperly used is not only for the prevention of accidents and the saving of life, but the fact that death from some of the poisons from which accidents the most frequently occur is accompanied by the most agonizing and sometimes prolonged pain, should doubly emphasize the need of care in storing or keeping or handling these things. They should especially be kept beyond the reach of children.

Treatment.

When poisoning has occurred send for the doctor at once and order him to come quickly and to bring what he needs in poisoning cases. If known, inform him what the nature of the poison is, otherwise there may be a regrettable delay in getting the proper antidotes or instrumental aid for the patient.

But begin work without waiting for the doctor to come, and get to work quickly. Generally the first thing to do is to give an emetic—make the stomach empty itself. Every minute counts, so use what may be had the most promptly.

If at hand, stir a tablespoonful of dry ground mustard into a quart of luke warm water.

If the mustard is not at hand, use the same quantity of common salt in a quart of warm water.

Force the patient to drink cupful after cupful of one of these mixtures; between whiles tickling the back of the throat with the finger or with a large stiff feather. Keep this up, the draughts to repletion and tickling the throat until plentiful vomiting occurs. If mustard or salt is not available, give the water without them; if warm water is not to be had right off, give cold water while water is warming. If clean water is not to be had on the instant, use water from the wash bowl or dish water or any water. The saving of life, not fastidiousness, is the order of the day. Repulsiveness may aid the emetic effect.

There are two exceptions to the general rule to give an emetic. When caustic alkalies or acid poisons have been taken do not give an emetic. Get their antidotes into the stomach as soon as possible.

The following are specific directions for the treatment of persons who have taken certain kinds of poisons or classes of poisons. For some of them the doctor will have better methods of treatment.

Acids, sulphuric, nitric, muriatic or hydrochloric, acetic (does not include carbolic acid or prussic acid).—Give an alkali in doses large enough to neutralize the acid, whichever can be obtained the most speedily—powdered chalk or magnesia in large draughts of water, or lime water, washing soda, or even soap or wood ashes. Then give milk, white of egg shaken up with water, olive oil, or thick smooth gruel. Do not give emetics.

Alkalies, potash, soda, ammonia, lye, quick lime.—Give water freely with vinegar, citric acid, or lemon or orange juice, or cider; then soothing drinks, such as white of egg and water, milk, gruel, or barley water.

Aconite or aconitine.—Emetic; hot strong coffee by mouth or enema as a stimulant; keep up the warmth of the body by warm appli-

cations, strictly maintaining the recumbent posture; artificial respiration if necessary.

Alcohol, (grain or wood).—Same treatment as for aconite. In poisoning from wood alcohol, aid its elimination by free sweating and by the administration of large quantities of water in which sodium bicarbonate has been dissolved.

Ammonia water.—See alkalies.

Arsenic and its compounds; Fowler's Solution, Paris Green, London Purple, etc.—Emetics; raw eggs beaten up with milk plentifully, or equal parts of oil (olive or linseed) and lime water, or milk with its cream, or magnesia freely.

Belladonna, or atropine.—Emetic; strong coffee or tea by mouth, or a pint as enema.

Camphor.—Same as belladonna.

Carbolic acid, phenol.—Give a tablespoonful of Epsom salts or Glauber's salts in a cupful of water, preferably warm. If either of these is not at hand use alcohol as an antidote. Apply alcohol full strength to external injuries from carbolic acid and as whiskey, gin or brandy diluted where carbolic acid has been swallowed. Use promptly and liberally whichever is available. Then white of egg in water plentifully. Do not give oils and do not try an emetic.

Chloral hydrate.—Same as aconite.

Chloroform.—Fresh air; artificial respiration.

Coal Tar Remedies for pain and fever, which are often constituents of patent medicines advertised for headache, colds, grippe, etc. (acetanilid, antifebrin, antipyrin, phenacetin). The symptoms are faintness, nausea, and perhaps vomiting and purging, pulse weak, sweating, paleness, cyanosis.—Emetic; keep patient lying down; coffee or aromatic spirits of ammonia; warmth to extremities.

Cocaine.—Emetic; strong tea or coffee; maintain respiration artificially if need be.

Copper salts, blue vitriol, etc.—Emetic; whites of eggs, half a dozen or more, strong tea or coffee.

Corrosive sublimate, bichloride tablets or other salts of mercury.—Same as copper.

Creosote.—Same as carbolic acid.

Formaldehyde.—A very weak solution of ammonia water.

Gas, illuminating gas, poisonous fumes, choke damp, gas from charcoal stoves or gas stoves, water gas, carbonic acid gas, carbonic oxide, etc.—Plenty of fresh air, open all doors and windows; artificial respiration to be kept up for a long time; hot strong coffee as enema.

Gasoline, benzine.—Same as alcohol or aconite.

Hyoscyamus and hyoscyamine.—Same as for belladonna.

Iodine, tincture of iodine.—Emetic; starch and water boiled as for starching clothing, a large quantity; white of egg freely.

Lead Poisons, sugar of lead, etc.—Emetic, large tablespoonful of Epsom salts or Glauber's salts dissolved in a cupful of water; then white of egg and water.

Mushrooms, or poison from bad meat or fish.—Emetic; ounce of castor oil, and enema if necessary to clear out the intestines; warmth to extremities.

Opium, morphine.—Emetic; strong coffee without milk by mouth or enema; rouse the patient and keep him in motion; if approaching collapse cease exercising him but begin and keep up artificial respiration. If obtainable, potassium permanganate, a quantity of about the size of one or two grains of wheat may be used several times dissolved in water.

Oxalic acid.—Chalk, lime or whiting in water given freely; even the whitewash from a wall, ceiling or fence may be used. Two tablespoonfuls of castor oil to clear the intestines, or an emetic may be given.

Phosphorous, lucifer matches.—Emetics; large tablespoonfuls of Epsom salts as a purgative. Do not give oil.

Strychnine, nux vomica.—Emetics; give powdered charcoal freely or a few drops of tincture of iodine at a time. Strong boiled tea; artificial respiration; the greatest possible quietude for the patient.

Tobacco.—Emetic; strong tea or coffee; keep up body warmth; quietude; artificial respiration if necessary.